Cyclic carbonate and their reactions with amines

Description of Technology: Six-membered cyclic carbonates substituted with keto or carbohydro-carbyloxy groups in the 5 position are described. These cyclic carbonates are especially reactive with primary and cyclic secondary amines to form novel hydroxyurethanes which are useful as monomers and reactive diluents.

Patent Listing:

1. **US Patent No. 6,228,979**, Issued May 8, 2001, "Cyclic carbonate and their reactions with amines"

http://patft.uspto.gov/netacgi/nph-Parser?Sect2=PTO1&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&d=PALL&RefSrch=yes&Query=PN%2F6228979

Market Potential: Cyclic carbonates are known to react with amines, such as primary amines, to form hydroxytrethanes. However, these reactions tend to be relatively slow, so this reaction has not been employed much for commercial uses. If methods could be found to speed up such reactions, they would be more useful for commercial uses.

Benefits:

- Useful as monomers and reactive diluents

Applications:

- Form novel hydorxyurethanes

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